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ABSTRACT OF THE DISCLOSURE

Methods of determining whether a sample includes one or more analytes, particularly proteinaceous analytes, of interest are provided. In the subject methods, an array of binding agents, where each binding agent includes an epitope binding domain of an antibody, is contacted with the sample. In many embodiments, contact occurs in the presence of a metal ion chelating polysaccharide, e.g., a pectin. Following contact, the presence of binding complexes on the array surface are detected and the resultant data is employed to determine whether the sample includes the one or more analytes of interest. Also provided are kits, systems and other compositions of matter for practicing the subject methods. The subject methods and compositions find use in a variety of applications, including proteomic applications such as protein expression analysis, e.g., differential protein expression profiling.